

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 63306905
PUBLICATION DATE : 14-12-88

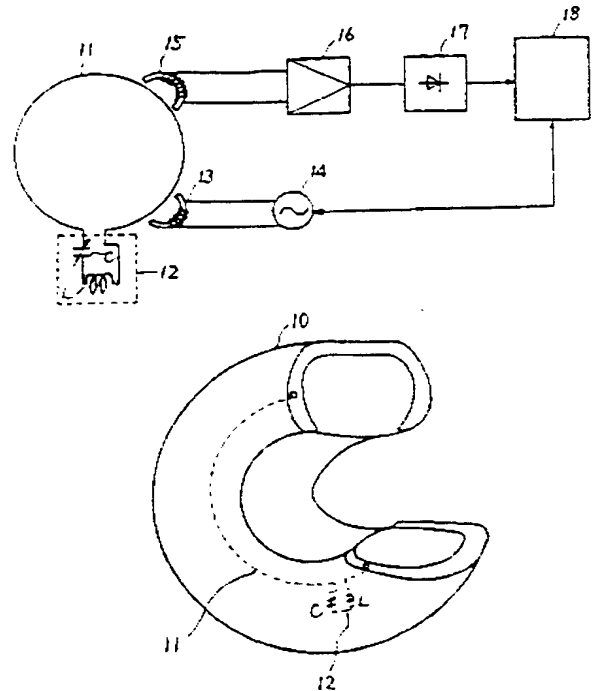
APPLICATION DATE : 10-06-87
APPLICATION NUMBER : 62145910

APPLICANT : SUMITOMO ELECTRIC IND LTD;

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INT.CL. : B60C 23/02

TITLE : TIRE AIR PRESSURE DETECTOR



ABSTRACT : PURPOSE: To surely detect the air pressure of a tire with ease by providing, in the tire, a loop-like conductor, and a resonance circuit where resonance frequency changes in response to an air pressure, and using the detect current value and the inductive current frequency of a loop-like conductor.

CONSTITUTION: In a tire 10, a loop-like conductor 11 is provided, and a closed circuit is also formed by forming the loop-like conductor 11 in a continuous circle, and further, there is provided a resonance circuit 12 where resonance frequency changes in response to the air pressure of the tire 10. Meanwhile, on the vehicle body side near the tire 10, an oscillation exciting coil 13 is disposed so as to supply inductive current to the loop-like conductor 11 through electromagnetic coupling. In addition, in order to supply current, frequency of which is controlled, to the oscillation exciting coil 13, a sweep oscillator 14 for sweeping oscillatory frequency is provided. Further, in order to detect the inductive current of the loop-like conductor 11, a pick-up coil 15 is disposed. The respective currents of the sweep oscillator 14, and the coil 15 arranged via an amplification circuit 16 and a wave detector 17 are fed to a processor 18, thereby judging the air pressure of the tire 10.

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